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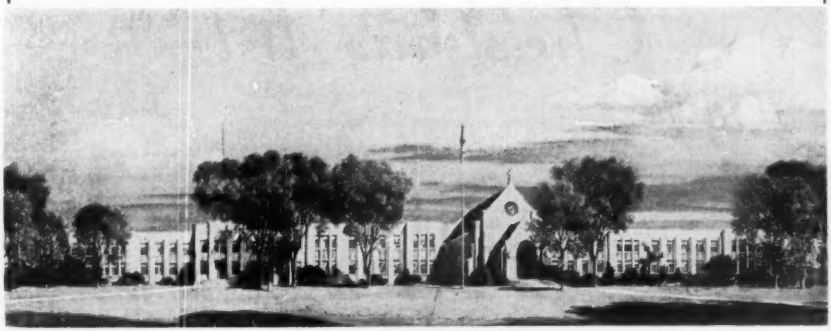

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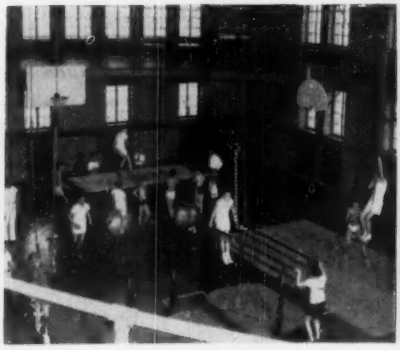

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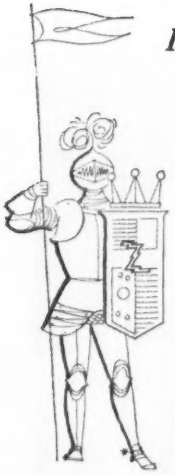

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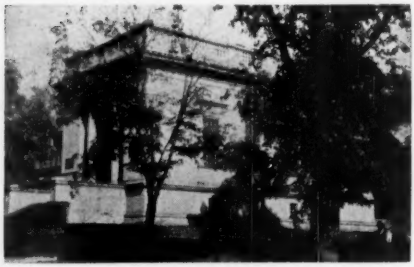

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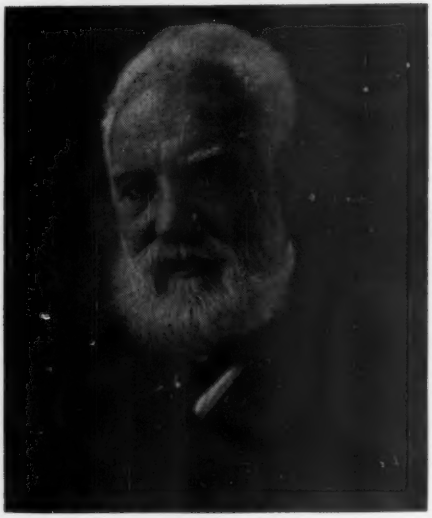

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The VOLTA REVIEW

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A Message to Parents

Dr. William G. Hardy
Chairman, Parents' Committee

LARGELY because of pressure from various groups of parents, the Association's Board of Directors appointed a special committee in June, 1956, to study the problems of membership and service, and to develop a plan for incorporating the interests and desires of parents of deaf children within the structure of the Association. Several meetings and much correspondence later, a plan was offered to the Executive Committee. After further changes the scheme was approved by the Board of Directors in June, 1957, and the first release, in the form of a descriptive brochure, was put in circulation in July. To date, it has gone out to various clinics, schools, parent-groups, and a few individuals.

The plan is quite simple. Any group of parents or interested individuals may affiliate with the Alexander Graham Bell Association for the Deaf as a group; each member family pays a nominal fee, and the group receives a subscription to the *Volta Review*. As increased membership warrants, it is contemplated that the Association's information service can be carried more directly out into the field than has heretofore been possible.

The other main aspect of the plan is the creation of a Parents' Section within the Association. This Section is to have its own governing board and officers, will write its own by-laws and conduct its own business. The idea of this is to provide a direct opportunity for interested parents to design and carry out their own national program; to furnish the Association's national organization and central-office facilities as a forum and a center of activities; at will to develop a special section of the *Volta Review* created by and for parents; and generally to aid and abet whatever developments the parents of deaf children are interested in. Qualification for participation in the Parents' Section is simple: one need only be a regular member of the Association and designate himself a member of the Parents' Section.

To serve as liaison between the Board of Directors of the Association and the Parents' Section, there has been designated a Parents' Committee of the Association. Its membership represents a wide geographic range of persons deeply interested in problems of deafness and of the parents of deaf children. The Committee is hard at work on plans for the birth of the new Parents' Section; delivery date is, as usual, not quite precise but will become so as gestation continues. It will be an accomplished fact on one especially designated day during the Association's biennial meeting in Pittsburgh early next June.

What becomes of the Parents' Section, who belongs to it, who are its officers, what are its program and its works, all these things depend solely on the parents themselves. Nobody will undertake to run "their show." The Association has set up a mechanism to give them a national forum, to make a nation-wide organization possible among persons who share these special problems and interests, and to provide physical facilities for the achievement of these goals. The Association Parents' Committee can only promise to work as hard as possible in aiding and abetting this achievement, and would like to know from the parents themselves what they wish done. All pertinent queries, demands, ideas and suggestions should be addressed to the Parents' Committee, care of Association headquarters.

Evaluation Of The Acoustical Environments For Group Hearing Aids

JEROME R. COX, JR.
SIDNEY L. SCHOENFELD
AKIRA TOTOKI

SINCE the National Research Council Group Hearing Aid was put into use at the Central Institute for the Deaf in 1951,[1] other group hearing aids have been installed in teaching rooms of the school. The acoustical treatment of the rooms into which these units were installed varies in several intermediate steps from no treatment to full treatment with one-inch acoustical tile. Listening to the output of a group aid in one of the rooms with no treatment demonstrates the undesirable effect of excessive reverberation. It is difficult, however, to determine by listening tests the amount of absorbing material required in a classroom.

We sought, therefore, to investigate by objective methods the effect of acoustical treatment. The method chosen compares the output of the preamplifier of a group aid for a sound source located near the microphone with the output for the same source moved to a distant location. If this test were performed in free space, the electrical output of the aid would be inversely proportional to the distance between the sound source and the microphone. However, if the test were performed in a very reverberant room, the electrical output would be almost independent of the location of the source. Therefore, the difference between the electrical output for the source near the microphone and that for the source far away gives a measure of the "deadness" or lack of reverberation in the room.

Four classrooms representative of the type found at Central Institute for the Deaf were tested. We shall refer to them as rooms A, B, C, and D. The dimensions of all four rooms are practically identical (approximately 14′ x 13′ x 9′), providing a good basis for comparison between rooms.

The acoustical treatment of each room is as follows:

Room A—no treatment.

Room B—ceiling completely treated with one-foot square, one-half inch

[1]Silverman and Harrison, "The National Research Council Group Hearing Aid Project." *American Annals of the Deaf*, 96: 420-431 (Sept., 1951).

These evaluations were carried out at Central Institute for the Deaf, St. Louis, Missouri where Dr. Cox is a research associate and Mr. Schoenfeld, B.S. is an educational audiologist in the Aural Rehabilitation Department. Mr. Totoki, M.S., a former graduate student at Central Institute is now associated with the Japan Oral School for the Deaf in Tokyo.

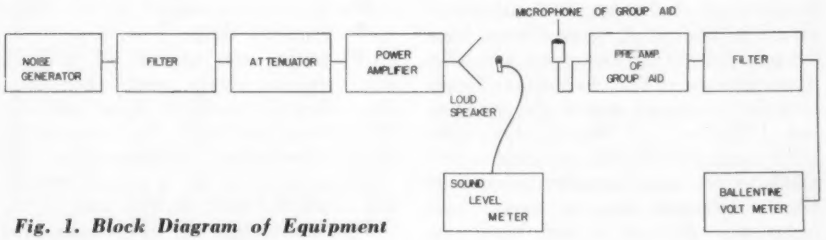

Fig. 1. Block Diagram of Equipment

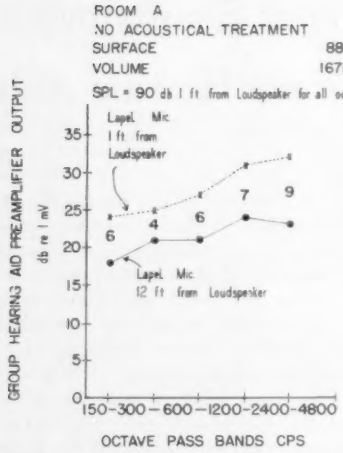

Fig. 2. Acoustical Response of Room A

thick perforated acoustical tile.

Room C—fully treated with one-foot square, one-inch thick perforated acoustical tile with the exception of two windows, blackboards, door, cabinets and floor.

Room D—fully treated with one-foot square, one-half inch thick perforated acoustical tile with the exception of two windows, blackboards, door, cabinets and floor.

The test equipment consisted of a noise generator; two sets of filters; power amplifier with attenuator; loudspeaker; sound level meter; voltmeter; and the group hearing aids of each of the above rooms. This equipment was set up according to the diagram in Figure 1. The microphone of the sound level meter was attached to the loudspeaker at a distance of one foot. For the first half of the test, the speaker was placed in the corner most distant from the microphone of the group aid. The room was tested with five octave bands of noise contained within the frequencies 150-300 cps; 300-600 cps; 600-1200 cps; 1200-2400 cps; and 2400-4800 cps. A sound pressure level of 90 db, as measured with the sound level meter, was obtained in each band (except in Room C where a level of 100 db in each band was used).

The output of the preamplifier was passed through the octave band analyzer to eliminate the effects of any nonlinearity in the speaker. The filtered output of the analyzer was fed to a voltmeter and the readings were recorded in decibels re 1 millivolt (db re 1 mV).

For the second half of the test, the loudspeaker was moved to within one foot of the microphone of the group aid (the microphone of the sound level meter was also fixed at a distance of one foot from the speaker). Measurements were again made in each of the

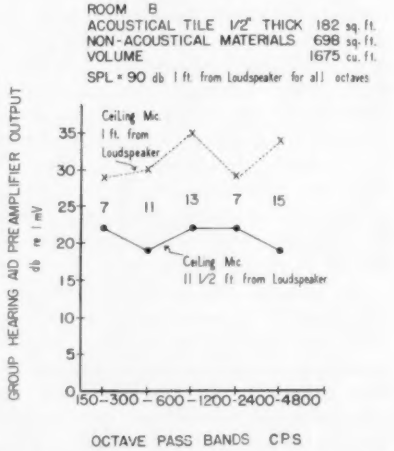

Fig. 3. Acoustical Response of Room B

five octave bands. The lapel microphone, when tested, was worn hanging from the neck of one of the experimenters who was seated at the classroom teacher's desk.

All testing was carried on with all windows and doors closed and at a time when the ambient noise was low. No attempt was made to simulate the sound absorption introduced by the children. Two or three people were in the room, however, during tests.

Figures 2 through 5 indicate the

acoustical response in octave bands for the rooms as measured at the preamplifier output of the group hearing aid. The lapel microphone was used in each room except in Room B, which has only a ceiling microphone. The "X-curves" marked indicate the response of each room with the group hearing aid microphone only one foot from the noise source. The "O-curves" indicate the response of each room with the group hearing aid microphone at a distance "far" from the noise source. The numbers found between the response curves indicate the difference in db between the two curves in each octave band.

For the children enrolled at Central Institute the 300-600 cps, 600-1200 cps, and 1200-2400 cps octave bands are the most important. Frequencies below 300 cps are not well reproduced by insert receivers. The children have negligible hearing above 2400 cps and the response of the receivers is poor. Therefore, for our purposes a good indicator of the lack of reverberation in a room is the average difference between the two curves in the three bands between 300 cps and 2400 cps. In the room with no acoustical treatment (Figure 2) the average difference was 6 db. In

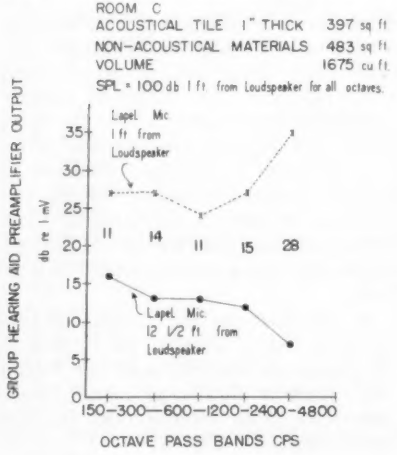
ROOM C
ACOUSTICAL TILE 1" THICK 397 sq ft
NON-ACOUSTICAL MATERIALS 483 sq ft
VOLUME 1675 cu ft
SPL = 100 db 1 ft from Loudspeaker for all octaves.
GROUP HEARING AID PREAMPLIFIER OUTPUT
db re 1 mV
Lapel Mic 1 ft from Loudspeaker
11 14 11 15 28
Lapel Mic 12 1/2 ft from Loudspeaker
150-300-600-1200-2400-4800
OCTAVE PASS BANDS CPS

Fig. 4. Acoustical Response of Room C

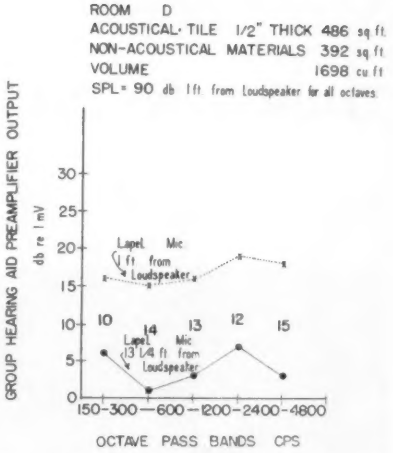
ROOM D
ACOUSTICAL TILE 1/2" THICK 486 sq ft
NON-ACOUSTICAL MATERIALS 392 sq ft
VOLUME 1698 cu ft
SPL = 90 db 1 ft from Loudspeaker for all octaves
GROUP HEARING AID PREAMPLIFIER OUTPUT
db re 1 mV
Lapel Mic 1 ft from Loudspeaker
10 14 13 12 15
Lapel Mic 13 1/4 ft from Loudspeaker
150-300-600-1200-2400-4800
OCTAVE PASS BANDS CPS

Fig. 5. Acoustical Response of Room D

the room with just the ceiling treated (Figure 3) the average difference was 10 db. Finally, there was no difference in the average difference between the curves for the room treated with one-half inch acoustical tile (Figure 5) and the one treated with one-inch acoustical tile (Figure 4). The average difference between the curves for both of these rooms was 13 db.

We conclude that the installation of acoustical tile produces a measurable improvement in the performance of a group hearing aid. In the Central Institute classrooms tested, full treatment with one-inch tile did not appear to be significantly superior to an equivalent covering of one-half inch tile. This conclusion may not be applicable, however, to classrooms of different construction and size.

We emphasize that our results apply only to Central Institute classrooms. Nevertheless, the method can be applied equally well in other schools. The equipment is relatively simple and inexpensive to assemble. The results provide a justifiable basis for recommending the extent of acoustical treatment for classrooms housing a group hearing aid.

THINGS TO DO IN PITTSBURGH

Mellon Square Park in the Golden Triangle conceals a six-level subterranean parking lot.

June 22-27, 1958

In making plans to attend the 68th Annual Meeting of the Alexander Graham Bell Association for the Deaf in Pittsburgh next June 22-27, you are undoubtedly considering visiting one or more of the several schools or other facilities for the deaf mentioned in the October issue of the *Volta Review*. You will also want to allow a little free time to see some of the interesting sights in the Pittsburgh area and also for some entertainment.

As a starter you might like to take the three-hour sightseeing tour conducted by the Pittsburgh Railways Company. The trip covers 35 miles and includes historical buildings, the Golden Triangle, Pittsburgh's reconstructed area, the University of Pittsburgh—the skyscraper university — an inclined plane ride and other points of interest.

Pittsburgh's Theatre Under the Stars opens its 13th season in June and offers a program of nightly performances of popular modern light operas at Pitt Stadium, located in the Oakland Civic Center not far from Webster Hall Hotel where the Association meeting will be held.

In addition to the moving picture theaters, Nixon Theatre, the Pittsburgh Playhouse in the city and the "straw hat" summer theater at nearby Irwin contribute to the entertainment facilities available in the city.

Speech and Language for the Deaf in Russia

HOWARD GRUFFYDH-WILLIAMS

THOSE concerned with the education of the deaf will perhaps be interested in these observations on certain phases of education of the deaf made during a visit to the U.S.S.R. in 1953.

Ordinary public schools in the towns and cities of Russia are organized under the "ten year system." Schooling is free and compulsory from seven to 17, but some children are allowed to leave school at 14, provided they take up trade training before starting work at 16. In schools for the deaf, however, the normal ten-year period is adapted and prolonged to about 12 years. Emphasis is put upon a firm grounding in preparatory and junior work, and the deaf child is allowed up to seven years to cover the work ordinarily done in the first four years of schooling. Senior classes (V-VII) can be covered in four years. But entrance to any university or higher institute is allowed only to those who have completed classes VIII, IX and X. If deaf children wish to enter university training they have to work this last period at normal speed and compete for university entrance on exactly the same terms as ordinary children.

The main work in Russian schools for the deaf is the development of speech and its use in communication and language. The major part of the school timetable is specifically devoted to work on speech and language. Even at the senior level about 30% of the lesson time is spent on Russian, while language teaching is, of course, complementary to work in science, geography and other subjects.

All schools work according to a master timetable and syllabus provided by the Russian State Ministry of Education. Close control is exercised over the material to be presented, but the method of presentation is left to the individual teacher. The timetable is as follows:

	Class Hours per Subject								
	Prep	I	II	III	IV	V	VI	VII	VIII
Russian	15	21	21	21	21	13	12	12	12
Arithmetic	6	6	6	6	6	6	6	6	6
Geography	-	-	-	-	-	2	2	2	2
Science	-	-	-	-	-	3	3	3	3
History of the USSR	-	-	-	-	-	-	2	3	3
Drawing	1	1	1	1	1	1	1	-	-
Eurythmics	1	1	1	1	-	-	-	-	-
Physical Training	-	-	-	-	2	2	2	2	2
Handwork	1	1	1	1	-	-	-	-	-
Vocational Training	-	-	-	-	6	10	10	10	10
	24	30	30	30	36	37	38	38	38

Division of hours devoted to Russian

	Prep	I	II	III	IV	V	VI	VII	VIII
Teaching letters	5	-	-	-	-	-	-	-	-
Reading	-	6	6	6	6	5	4	4	4
Development of oral and written expression	10	14	14	14	15	5	5	5	5
Including:									
(a) Technique of speech	4	4	4	4	4	1	1	1	1
(b) Lipreading	1	1	1	1	1	1	1	1	1
Grammar	-	-	-	-	-	3	3	3	3
Writing	-	1	1	1	-	-	-	-	-
	15	21	21	21	21	13	12	12	12

The time devoted to Russian includes one writing lesson per week in Classes I through III; one hour per week for science and geography in Classes I through IV; and not more than two hours per week for individual work on pronunciation and the correction of individual faults and auditory training of any residual hearing capacity.

The development of speech, its expression in language forms, both written and oral, and the thought and experience of being taught specific subjects are all integrated into this over-all timetable. The Russian deaf child is under considerable pressure of work. Thus a hearing child in Classes I through III has 18 hours schooling (four lessons per day of 45 minutes each) plus nine hours homework, working a six-day week. Subjects at this stage include Russian language and reading, arithmetic, games, drawing and singing; in Class IV, natural science, history and geography are introduced with increased homework. The Russian deaf child in Class I through IV does thirty lessons (22½ hours) per week of classwork in Russian, arithmetic, drawing, eurythmics and handwork. A partially deaf child would do similar work with additional speech training and lipreading up to five lessons per week.

The teacher is under pressure to complete the authorized syllabus and considerable differences of approach to the work of teaching can be seen. The teacher is obliged, as in most European countries, to follow the official syllabus, but Russian schools for the deaf are all provided with a research room, fully equipped for lesson preparation where all the notes from earlier lessons and teaching practice are filed and ready for reference. If any teacher wishes to teach a particular topic, reference to this workroom will provide all the information other teachers have collected, and there is always an older teacher to help with difficulties. Another striking feature is the encouragement of open lessons. Teachers are allowed, or even asked, to visit other classes to attend to the lessons and help each other with demonstration of techniques and criticism.

The theory behind the Russian approach to speech for the deaf is that speech itself is a conditioned response

The author is senior geography and religious knowledge teacher at the Mary Hare Grammar School for the Deaf, Newbury, Berkshire, England. He is a graduate of London University and has studied social science and education at Reading University.

or reflex to the stimuli afforded by certain experiences. For the Russian teachers of the deaf, oralism is the method which must be employed, amplified stimulation of residual hearing capacity linked with speech and rhythm training and allied to lipreading. While the theory may seem different, it will be seen that in practice there are many similarities with deaf teaching as carried out in the West. Russian educators say that their work is almost entirely the product of Soviet research, but there is no doubt that they are fully aware of most modern trends in the education of the deaf and are incorporating the new ideas into their schools, wherever applicable. In some ways their centralized system is fortunately arranged. Russian schools are able to take full advantage of modern facilities and are given the opportunity to utilize any research findings at school level. Information is circulated through the directive authority of Institutes of Defectology and an efficient Inspectorate. In this way many schools can soon benefit from new ideas and technique.

Here it is perhaps not out of place to notice some of the theories behind the Soviet approach to the development of speech. The classic exposition of the role of speech and the manner of its operation was given by I. P. Pavlov in his work on "The Conditioned Reflex" (1934):[1] " . . . In the animal, reality is signalled almost exclusively by stimulations and by the traces they leave in the cerebral hemispheres, which come directly to the special cells of the visual, auditory or other receptors of the organisms. This is what we (humans) too possess as impressions, sensations and notions of the world around us, both the natural and social—with the exception of the words heard or seen. This first system of signals is common to man and animals. But speech constitutes a second signalling system, which is peculiarly ours, being the signal of the first signals . . ." Later Pavlov was concerned with this "second signalling system" as operative through speech.[2] He referred to speech and language as "a principle which makes possible an unlimited orientation to the surrounding world, and which creates the highest form of human adaptation, science . . ." Little was done, however, by Soviet research workers on the study of the operation of this second signalling system and its interaction with the first. It was left until 1952 before an important contribution was made to this field by N. I. Krasnogorsky of the Pavlov Institute, Leningrad.[3] Krasnogorsky has been investigating the physiology of speech and hearing in relation to the conditioned response since 1907. (See Goldstein: *The Acoustic Method*, page 134.)

Russia, however, sometimes appears as strange as the other side of the moon. Language teaching is said to be dominated by Stalin's work "On Marxism in Linguistics," and acknowledgment is often made to this work. This trend can only be explained in terms of Russian conditions.[4] It is largely necessary in a totalitarian society that all fields of endeavor should be reconciled to the dominant ideology: in a Marxist society, all ideas must be in line with Marxist philosophy. This may seem far-fetched to readers and hardly worth noting in an article about the education of the deaf, but it is no vague thing to our teaching colleagues in Eastern Europe. The teaching of language to the deaf is dominated by a pronouncement arrived at, not by scientific evaluation, but by political fiat in terms of ideological dogma. One can do little but emphasize the fact that the teaching is dominated by Stalin's, "On Marxism in Linguistics," published first in *Pravda*, June 20th, 1950.

The dilemma of Soviet teachers of the deaf is to reconcile physiological research with ideological dictates. It is a measure of them as teachers that they are able to do this.

It is recognized that most deaf children have some vestige of hearing. According to the official state syllabus, the purpose of education in the special schools for the deaf is to develop the ability to distinguish sounds and to make full use of what hearing there is. The schools are expected to develop in pupils the ability to perceive non-verbal sounds. They are to develop abilities to comprehend the elements of speech as expressed through phonemes, stress, intonation and familiar words and phrases and to use the vestiges of hearing in work on pronunciation. That this work is often being carried out in a fine manner was observed during a visit to School 337, Moscow, the main deaf school with over six hundred pupils. At the 9th Class of the middle school, I attended a history lesson which made full use of a group hearing aid. Individual controls were before the pupil, with a microphone on an adjustable extending frame before the teacher. Everything was arranged so that the apparatus could be brought into use with the minimum of delay. Listening to the lesson on the weaknesses of 18th Century Russia, one could see that oral attitudes were paramount, an interplay of questions and answers. It was particularly interesting to note the impressions of my Russian interpreter who had no previous acquaintance with deaf education—he did not find any difficulty in translating the remarks of the children and could not detect any marked slurring in enunciation. The oral emphasis could be seen when the children changed classes, and passed us in the corridors, chattering gaily with a surprising absence of gestures or signing.

It is evidently felt that sound perception is valid only if connected with specific experiences, and that rhythmic work and training is an important contributory factor to such auditory understanding. Eurythmics occupies an important part in the junior school program. The syllabus includes the perception of musical sounds, tempo and tone, rhythm, actions to music, games with speech sounds, physical exercises to music, marching, running, jumping, crawling, balancing, dancing, ball games and preparation for festivals. Use is made of phonograph, piano and a variety of instruments including drums, tambourines and percussion bands. Folk songs and dances figure throughout the syllabus. From the beginning in the preparatory class, the lessons are based on the music of composers such as Schubert, Schumann and Mussorgsky. Later we find the names of Tchaikovsky, Glinka, Glazunov, Brahms, Kabalevsky and Rimsky-Korsakov.

A handbook on this kind of work is issued by the State Ministry, consisting

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The Association announces, with gratitude, a gift of shares of stock totaling in value more than one thousand dollars, from Mrs. Lilian Grosvenor Jones. Proceeds of the stock sale are to be used to further the work of organizing the Parents' Section.

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of forty-eight pages of closely-printed suggestions and work schedules.

Taking note of all this theoretical progress, and the degree of organizational work that it implies, it is surprising to see that it was as late as 1950 that an order was issued to insure that partially deaf children should be educated separately from the severely deaf. Recent regulations also govern the establishment of "hearing cabinets" in all deaf schools, where hearing tests take place and hearing aid apparatus is used. By any Western standards, the equipment found in such cabinets is crude.

A few hours' visit and discussion does not allow one much justification for wide generalization about Russian deaf education. Educators in the Soviet Union do show an intense interest, however, in trying to understand and evaluate trends in education of the deaf in Western Europe and America. It is to be hoped that delegates will be allowed to visit the International Congress on the Educational Treatment of Deafness in Britain (1958), and that they will give further information about the whole scope of their work.

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[1]I. P. Pavlov, *Selected Works;* Part V: "Methods of Investigation and Fundamental Laws of Development." Page 262. Published by Foreign Languages Publishing House, Moscow 1955.

[2]I. P. Pavlov, *Collective Works,* 1951 Vol. IV. Pages 428; 429. (Available only in Russian.)

[3]N. I. Krasnogorsky "The Physiology of the Development of Speech in Children" from *Vestnik vysshei nervnoi deyatel' nosti* 2.4. 1952. Translated for *Soviet Psychology Bulletin* Vol. II, No. 2 London, 1955.

[4]See "The Soviet Linguistic Controversy" (translated from the Soviet Press). Kings Crown Press, New York, 1951.

Aphasia in Children

Diagnosis and Education

EDNA K. MONSEES

APHASIA in children has been receiving increased attention in recent years. This is partly due to the new techniques and instrumentation for testing hearing, which use electrodermal (EDR) or galvanic skin resistance (PGSR) responses, or electroencephalic responses (EER). These tests are showing, in many instances, a wide discrepancy between the child's sensitivity to sound and his overt responses to and utilization of sound. About ten years ago when wearable hearing aids for children first became a reality, many people hoped that early and continuous use of a hearing aid and intensive auditory training would prevent the "deaf voice quality" and would enable most children to learn speech and language much more easily than had been possible before. Notwithstanding the truly magnificent effects of hearing aids for many thousands of children, we find that our hopes have been only partially realized.

What is aphasia?

Aphasia is the inability to use and/or understand spoken language as a result of defect or damage in the central nervous system. There seems to be wide agreement in this definition.

There is fairly general agreement also that although the aphasic condition is a result of some defect in the central nervous system, evidence of such defect may not be revealed by the usual neurological examination and electroencephalogram. That is, the finding of speech and language disability, with other possible causes ruled out, is in itself evidence of central nervous system disorder.

There are two main types of aphasia —receptive or sensory aphasia and expressive or motor aphasia. In receptive (sensory) aphasia, the child lacks understanding of spoken language, has no expressive speech, and has adequate use of the speech musculature for chewing and other functions. In expressive (motor) aphasia, the child has good understanding of verbal speech, but lacks expressive speech, has adequate use of the speech musculature for chewing, etc., but has partial or complete inability to imitate speech sounds or words. Mixed receptive - expressive aphasia may be diagnosed when the characteristics of both types are present.

Characteristics of Aphasic Children

Credit for focusing attention upon the problems and needs of aphasic children in recent years is due largely to the work of Dr. Helmer Myklebust at Northwestern University and to Miss Mildred McGinnis and Dr. Frank Kleffner at Central Institute for the Deaf. Each has set forth various criteria for diagnosis of aphasia in children and suggestions for training.

In making a differential diagnosis of aphasia both believe it important to rule out mental deficiency and deafness as the cause of the child's failure to talk and/or to understand speech. Performance type psychological tests which do not depend upon the use of verbal language, either in the instructions

Mrs. Monsees is director of the Hearing Rehabilitation Center, and also is audiologist in the Hearing and Speech Department of Children's Hospital of the District of Columbia.

given or in the responses, are used to detect speech failures due primarily to mental deficiency. Often when it is not possible to obtain satisfactory results on the tests, a child may be accepted for training as an aphasic before definite conclusions about the intelligence level are reached. The problem of ruling out deafness as the cause of the child's failure to speak is much more difficult, and will be discussed in some detail later.

Severe emotional disturbance is also recognized as a factor to be ruled out in making a differential diagnosis of aphasia. Here also, one cannot always draw a clear line. The language disability itself may be seriously disturbing to the child, and a child who would retreat into silence as a result of emotional disturbance probably has an underlying weakness of speech ability. From this point of view, one obvious approach toward overcoming the emotional problem is to teach the child to talk and to understand speech.

In considering the important factors in making a differential diagnosis of aphasia, various groups emphasize different aspects of the aphasic condition.

Myklebust states that "perhaps the most fundamental problem confronted by the aphasic child is his reduced capacity for normal integration. He sees, hears, and feels; but he cannot integrate this sensory information into an experience pattern which is logical and reliable for purposes of understanding his environment . . . "[8]

CID does not believe the aphasic child to be deficient in this respect, but rather places most emphasis in diagnosis on the nature of the language disability itself. They believe that the main characteristic of the aphasic child is the weakness in memory for speech sounds and for the sequence of sounds in a word and of words in a sentence.*

Hardy has expressed this memory factor as follows: "What is most obvious is that they (children with this type of language disorder) cannot naturally listen, understand, store and recall symbolic structures involving a time order and a stress pattern."

It is interesting to note that Orton, writing in 1937, said of what he called "auditory aphasia" or "word deafness": "While these children show many errors of a wide variety of kinds it is clear that their difficulty is in the recalling of words previously heard, for the purpose of recognizing them when heard again or for use in speech, and that one of the outstanding obstacles to such recall is remembering all of the sounds in a word and these sounds in their proper order . . . It is the recall of sounds in proper temporal sequence which seems to be at fault . . ."

Some writers say that motor incoordination or deficiency is characteristic of aphasic children, while others feel that aphasic children have no characteristic motor difficulties.

The behavior of aphasic children has been described by some writers as distractible, disinhibited, and perseverative. Others believe that there is no characteristic behavior pattern in aphasic children, that some show these characteristics and some do not.

Aphasia and Deafness

It is generally agreed that before a diagnosis of aphasia can be made, deafness must be ruled out as an etiological factor in the child's failure to talk and to understand spoken language. In expressive or motor aphasia this usually presents no difficulty, since normal or adequate hearing often can be ascertained through standard pure tone and speech reception threshold testing, as well as by clinical observation. Some receptive aphasics also have observably normal hearing. In the case of other receptive aphasics, however, it is

*From lecture notes made in course in "Assessment & Teaching of Aphasic Children" at CID, summer 1957.

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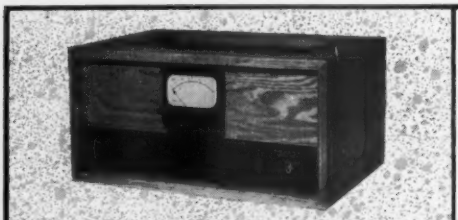

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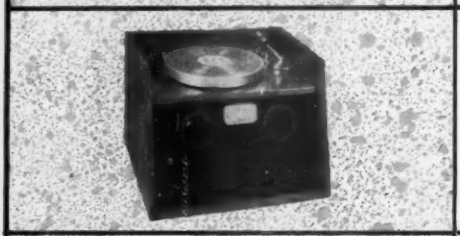

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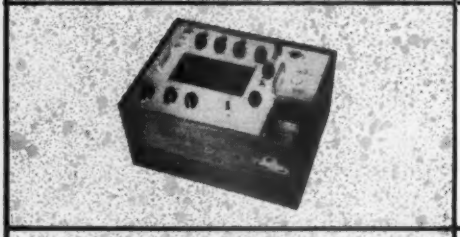

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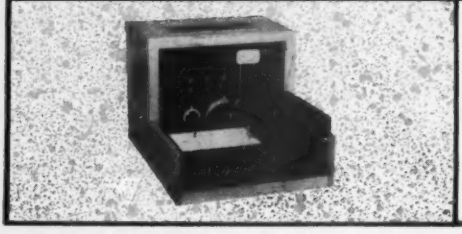

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an auditory stimulus whose frequency is increased slowly and whose intensity is constructed that the patient's adjustments are automatically recorded on the traces his own audiogram. A flexible and valuable research audiometer.

m a s s a c h u s e t t s

most difficult to ascertain the hearing acuity, particularly since receptive aphasia is in itself an auditory disorder in the broad sense of the term. The child "hears," but is unable to utilize sound and hearing in understanding the speech of others.

Some writers believe that deafness and aphasia can be differentiated on the basis of certain observable behavior of the child. For example, they say that the deaf child uses gesture and an aphasic child does not; or that the deaf child substitutes visual clues and develops understanding of speech through lipreading, while an aphasic child does not. Or they say that the deaf child is consistent in his failure to respond to environmental sounds, while the aphasic child is inconsistent. The writer has found none of these generalizations to be valid guides in differentiating the two groups. In our experience, some aphasic children gesture, as do some deaf children; some of both groups do not. Some deaf children do not develop natural lipreading skills, while some sensory aphasic children on occasion seem to understand speech. A hard of hearing child with an audiogram showing almost normal hearing for the low frequencies and a sharp drop in the middle and high frequencies can be just as baffling to his parents and other observers in his apparent inconsistent responses to sound as the aphasic child.

Hearing tests by standard audiometric techniques as well as by EDR and EER can be almost as unenlightening in differentiating deafness and aphasia. In standard audiometry, the patient is required to indicate by some overt signal whether he does or does not hear the test tone. He indicates that he is aware of the sound—and we know that awareness of sound and sensitivity to sound (or "hearing" the sound) are two quite different things. Hearing tests by EDR and EER audiometry do not require the patient to give any overt voluntary indication of his awareness of the tone. Such tests measure only the sensitivity of the organism to the tones. Recent findings by Hardy and others have shown many cases of children who give every outward appearance of deafness but show normal hearing acuity thresholds when tested by EDR and EER audiometry. There are many instances of children who give fairly consistent audiograms from one test to the next by standard audiometry showing marked hearing loss, but who show normal thresholds by EDR and EER. Hardy says that a large percentage of the children tested in the Hopkins Hearing and Speech Center, brought in for testing because of speech and language problems and suspected deafness, have this type of auditory disorder—that is, normal end-organ or cochlear function, but with what he terms auditory imperception, or central auditory disorder or retrocochlear auditory disorder. He also states that "a great weight of evidence suggests that impairment of the inner ear does not commonly exceed an average loss of 70-75 decibels . . . "

Children who fall into the category of those with abnormal utilization of sound but with normal sensitivity to sound are by no means all of one type in regard to their speech and language learning capacities. Some would consider all such children as aphasic. The writer finds it impossible on the basis of experience to accept this concept of aphasia. We have worked with many such children and find that some of them are able to learn speech and language rapidly, when fitted with a hearing aid and provided with speech instruction that emphasizes auditory training. The following case study illustrates this type of problem:

B. V., now 4½ years old, was seven months old when the parents suspected deafness because of his failure to respond to all except very loud sounds. The prenatal and birth history were negative. There was no blood type incompatability. General development was

normal. He had an ear infection at 10 months, measles at two years, and asthmatic bronchitis between the ages of two and three years. When he was 15 months old, the parents began auditory training, using a small amplifier and headphones. At 22 months, he was tested and reported as having a bilateral hearing loss of about 80 db. A hearing aid was recommended, and he has been wearing one continuously since that time. About this time, the parents enrolled him in a class for children with impaired hearing and also began the Tracy Clinic correspondence course. After about one year, the parents felt that he was not benefiting from the class training and the patient began private lessons with us. At this time, he had a large receptive vocabulary and auditory discrimination had begun to develop, but his speech consisted mostly of "dah dah," with near normal voice quality and inflection. We worked on achieving better tongue and lip movement in speech, along with oral language development. After one year, when B. V. was 3½, we discontinued regular lessons because we felt that his speech and language had become almost normal for his age. We recommended continued home training and enrollment in a nursery school with normally hearing children. We now see him at intervals of about three months, and his language has continued to develop exceedingly well under this program. We referred him to Johns Hopkins Hospital for a consulting opinion on his needs. Their audiogram, made by PGSR, shows thresholds between 10 and 25 db for the six frequencies 250 through 8000. Their report reads, in part, as follows:

"This child has independent auditory patterns if sound is loud enough. Interestingly enough, in the sound proofed room, he gave gross response to voice, masking noise, whistle, and animal sounds at a 16 db level. This was not always consistent, however, However, he functions at about a 60 db level without his hearing aid. He identified a tray of objects down to this 60 db level. With his aid worn in his left ear, he identified the same tray of objects at a 30—36 db level. He repeated a P. B. (Phonetically Balanced words) list with amazing accuracy. Most of the errors he made were his own speech substitutions. This proved to be a very interesting auditory problem and there is little doubt but that this is a brain stem problem which lies retrocochlear. . . . Certainly, this child should use moderate gain amplification. . . . It seems that this child should be able to get along in a regular classroom with adequate supportive help. . . . Impression: An intelligent child with a retrocochlear auditory problem which probably lies in the brain stem. It seems to involve an unstable loudness factor. There may be a slight conductive component." They reported also that "his language and speech are a real tool for him." They recommended continuation of the present program and speech therapy in a year or so if it is indicated.

We find that some children with central auditory disorders, such as the example just given, learn rapidly when fitted with a hearing aid and taught by methods commonly used with the deaf and hard of hearing, and with auditory training. Other children do not learn by such methods; these children exhibit the weakness of memory for speech sounds and for the sequence of sounds in words, which CID emphasizes as the crux of the problem of aphasia. In our opinion, diagnosis of aphasia cannot be properly given until after a period of diagnostic teaching which clearly reveals such memory weakness for speech sounds and sequence.

Teaching Methods

A considerable variety of suggestions have been put forth for the teaching of speech and language skills to aphasic children. Myklebust states that children with receptive aphasia usually need training only with inner and receptive language. He believes that children

with receptive aphasia will begin using language after they achieve a certain level of receptive language, so that training in expressive language is not required. For children who do not start expressive language naturally, however, he recommends training in expressive language. He does not recommend correction of the child's articulation until his "language usage has met practical communication needs in daily life."[6]

Myklebust's method consists of four stages of training: (1) teaching of inner language as shown by the child's ability to play imaginatively with toys; (2) teaching the child to recognize the names of the toys; (3) teaching the child to recall the names of the toys (giving the right word in response to the question "What is that?"), and (4) at a much later stage, when the child can use speech adequately, teaching correct articulation. The method presents the whole word and words in phrases and sentences, and the child learns these words and phrases through simple repetition of them.

The writer has not seen this method demonstrated at Northwestern, nor had the opportunity to observe the children trained there. However, the method as it is described is the same as that we use in teaching speech and language to preschool deaf and hard of hearing children. In our experience we have found a fairly high percentage of children who fail to learn by this method. The children who do not learn are those who cannot remember a word from one day to the next or even from one hour to the next. They exhibit the poor memory for the sounds and sequence of sounds discussed above. In the writer's opinion, children who have no memory problem and who learn by the method described, might rather be regarded as having speech problems due to auditory impairment or other factors.

Just as it is true that a diagnostic label may not fully describe a child or his symptoms, so should it be pointed out that children who learn by the whole word—simple repetition method and those who do not learn by this method are not two highly distinct types except at the extremes. There are gradations of ability and disability. That is, a child may not be totally devoid of the ability to learn speech and language by the whole word-simple repetition method of teaching, but he may learn so slowly and articulate so poorly that we would have to say that his problem is more like aphasia than like a speech problem due primarily to auditory impairment, central or peripheral. It is with the children who do exhibit marked deficiency in the ability to remember speech sounds or sequence that the McGinnis-CID method is achieving such successful results.

The CID method which is used for both receptive and expressive aphasia, may be described as follows: the child is taught first to articulate a number of speech sounds, then to produce several sounds in a set sequence and to read and write these sounds in sequence *before* the sequence is identified as a word and associated with the appropriate picture illustrating the word. By means of a highly disciplined and structured system of drills, the child learns first to say, for example, the sound of the letters "b" "oa" and "t." He learns to say them in sequence but separated into three distinct sounds—"b"—oa—t." He learns to read these three sounds in sequence, then to write them, and finally the sequence is associated with a picture of a boat. In order to effect the memory required to recall the sound of each letter, a multi-sensory approach is used: the kineseology of precise articulatory position, the kinesthetic and visual experiences of writing the sound and seeing it in writing. Different colors are used in writing consonants and vowels in the word in order further to emphasize separation and sequence. Thus the weak auditory memory is reinforced by kinesthetic and visual stimuli. The next steps in the process involve learning to

read and write the words from memory and to differentiate by auditory stimulation alone among the sounds and letters learned. As soon as an adequate number of words is learned, the building of sentences begins; first the child memorizes the sentences by rote, then learns to use them in other than drill situations.

Children taught by this method learn to talk, to read, and to write as parts of one integrated process. It is reported that in the process many of them learn to make use of sound so that in time, little or no evidence of auditory disorder remains. Others with more severe auditory disorders, once they have developed means of surmounting the word memory weakness of aphasia, go on to schools or classes for deaf and hard of hearing children where they are able by this time to learn by the methods used in teaching such children.

The Use of Hearing Aids

Several years ago when Dr. Hardy and the staff at Johns Hopkins began to use the term "normal end organ," many people misinterpreted the phrase and construed it to mean "normal hearing." Unfortunately this misinterpretation still persists in some quarters. Hardy has in recent writing begun to clarify the terms, and he states clearly that "normal end organ" and "normal hearing" are not synonymous, that a child may have normal end organ functioning with severe retrocochlear auditory disorder.

Others have erroneously interpreted "auditory imperception," or "retrocochlear auditory disorder" to mean "aphasia." Hardy stresses the fact that these are two separate disorders. One patient may, of course, have a dual handicap of both auditory imperception and aphasia.

No reasonable person would suggest that a child with normal hearing should wear a hearing aid. But there is some disagreement as to the use of hearing aids with aphasic children who also have auditory imperception or perhaps even peripheral hearing loss. Some teachers would postpone the use of amplification or hearing aids for all aphasic children until the language disability has been overcome through training. Hardy feels that a mild gain hearing aid in such cases serves as an "attention centering" device and as such is helpful. The writer's experience leads unhesitatingly to acceptance of the Hopkins view in this regard. A case history of one of our aphasic pupils who also has a retrocochlear auditory problem may serve to illustrate:

R. R., now 6½ years old, was first taken to an otologist at the age of three years because he was not yet talking and because of suspected hearing loss. He was referred for and tested by PGSR and the report stated that "his hearing is in the normal range from 250 through 8000 cycles." The impression was "delayed speech for various reasons" — mostly emotional and complicated by a multilingual situation. Another series of tests was made several months later at another medical center, and this report says, "It is the considered opinion of each of the consultants here that the lack of speech is basically due to his inability to hear, or at least to comprehend what he hears." By the age of 4½, R. had acquired only a few words. He communicated by means of gestures accompanied by jargon. He was examined at still another center at that time, and the diagnosis was "general delayed speech complicated by bilingual models." We had our first contact with him at this time also. We tested his hearing by standard audiometric techniques and obtained fairly clear-cut thresholds of about 60 db. We recommended a hearing aid, which he has been using continuously since that time. Since the family was living outside the country at this time, we instructed the parents in methods of teaching speech and language and suggested enrollment in the Tracy Clinic course. The family returned to Washington to live one year later, when the patient was 5½ years old. He had learned no more

than 10 words during the intervening year, and his communication still consisted of elaborate gestures accompanied by meaningless jargon. Our repeated audiograms using standard techniques show some discrepancies, but generally indicate a loss of between 45 and 65 db. We started private lessons at the rate of three a week, and the family gave home training of one-hour daily lessons. We were using the whole word-simple repetition method previously described, which we had used successfully with hard of hearing children. In a three-month period, R. learned only about twelve words and these were articulated very poorly. We then changed to the method of teaching by phonetic elements and drills leading up to a word. In six weeks of training by this method, R. had learned to recognize by hearing alone, by lipreading alone, and by reading, and could write, four vowel sounds and three consonants. He had also learned six words, which he could read, write, name orally, and match to the correct picture. His progress since then has remained steady and reasonably rapid.

Subsequent testing by EDR audiometry confirms the earlier tests showing normal thresholds. This is no longer interpreted as normal hearing, however, but as a retrocochlear or central auditory disorder. R. continues to wear his hearing aid, and it is of unquestionable benefit to him. Without the aid, he responds only occasionally to speech or to sounds in his environment. During several lessons we tried without the hearing aid, he persistently said "What?" and gestured to indicate he did not hear, or cupped his hand to his ear. With the aid on, he responds when spoken to, notices other sounds, and attends to his lessons without apparent hearing difficulty. A recent report from Hopkins regarding this child says, in part: "His hearing aid has apparently been of considerable benefit in centering his attention on speech stimuli. . . . The test picture this time was most interesting. In the sound-field of the test room, he responded clearly to a wide variety of stimuli at 10-15 db re normal. These were stable, repeatable responses. By PGSR audiometry, the peripheral function is well in normal range. . . . There is evidently a loudness factor involved, of about 40 db, which suggests an involvement in the central, transmissive pathways. . . . Without doubt, the basic factor is an aphasoid disorder. . . . Whether the present loudness deficit is a true organic involvement or an inhibitory, behavioral thing, is speculative. The fact is that he responds better with the increased loudness of the hearing aid."

On the other hand, we confess to having attempted on two occasions to put hearing aids on children who absolutely rejected them. We concluded that the normal thresholds on the EDR tests in these cases meant truly normal hearing, not merely "normal end organ."

It is our policy to try hearing aids on an experimental basis at first, for all children who do not respond overtly to sound in a normal manner. We believe that a child with normal hearing will not tolerate a hearing aid—unless, perhaps, he has a grossly abnormal personality and drastic measures have been used in the effort to force him to wear an aid. We do not attempt to force any child to wear a hearing aid. Children with central auditory disorders as well as children with peripheral hearing impairment, in our experience, are usually delighted with their hearing aids and apparently get a great deal of help from them.

Planning the Educational Program

Just as there remains much to be discovered and learned about the nature and causes of aphasia in children, there also perhaps remains much to be learned about effective methods of teaching aphasic children. Children in general and the aphasic condition itself are not static. Close cooperation between per-

sonnel engaged in diagnosis and teaching is certainly desirable. And within the educational program, flexibility should be provided so that children with similar problems and abilities can be grouped together for teaching, and so that easy transfer from one group to another can be made as the child's needs change. An ideal school program would provide for transfer, sometimes on a trial basis with supportive teaching and perhaps subsequent complete transfer of children from classes for aphasic children to classes for normal children on the one hand, or classes for deaf or hard of hearing children on the other. This transfer would take place when the training had given the aphasic child mastery over the tools for learning and remembering words and language forms so that he could now learn by the methods used in teaching normal children or deaf or hard of hearing children, as the case might be. There should also be ease of transfer the other way—from classes for normal hearing or hearing handicapped to classes for aphasics. The teaching in all classes, it is hoped, would be both diagnostic and creative, and designed to meet the needs of the individual child.

Summary

To summarize: there is clinically observable a group of children having a language disability characterized by failure to develop speech and/or lack of understanding of spoken language, where the disability cannot be accounted for by intellectual deficiency. In some cases, adequate hearing is evident or readily ascertainable. In other cases, accurate measurement of hearing acuity may be difficult to obtain by standard audiometric techniques, and often shows marked inconsistencies from one test to another or discrepancy between observable hearing and the test results. Tests by EDR and EER audiometry often show normal end-organ functioning or retrocochlear impairment which cannot be expressed in terms of decibels and which is characterized by normal sensitivity to sound but abnormal utilization of or response to sound.

Children in this category—with no speech and/or no understanding of speech, and auditory imperception of central nervous system origin—fall into one or two main groups in terms of their response to training:

In one group are those who through the use of hearing aids and training are able to develop good auditory discrimination fairly rapidly, and who learn to talk and to understand speech by teaching methods that present whole words and achieve memory of these words by simple repetition.

(*Continued on page* 414)

Calendar of Events

ALEXANDER GRAHAM BELL ASSOCIATION FOR THE DEAF—68TH ANNUAL MEETING—JUNE 22-27: PITTSBURGH, PENNSYLVANIA

AMERICAN SPEECH AND HEARING ASSOCIATION—Nov. 20-22: Cincinnati, Ohio.

ACOUSTICAL SOCIETY OF AMERICA—May 7-9: Washington, D. C.

INTERNATIONAL COUNCIL FOR EXCEPTIONAL CHILDREN—Apr. 7-12: Kansas City, Mo.

INTERNATIONAL CONGRESS ON THE EDUCATIONAL TREATMENT OF DEAFNESS—July 15-24: Manchester, England.

Book Week at Western Pennsylvania School for the Deaf

LILLIE KEY EDGE

IN past years Thanksgiving—its customs and legends—was the highlight of November. All school activities savored of our national Feast Day from the minute the last Halloween cat and goblins were spirited away until the Santa Claus and angels ushered in the beautiful Christmas season. Bulletin boards gave precedent to the fourth Thursday of November. Anything pertaining to Thanksgiving—pictures, clippings, stories, poems, children's art—was the order of the day.

Not so anymore! November is now significant for a second important event —Book Week, an observance which has become an integral part of the fall program in most public schools and libraries. And Book Week is just what the doctor ordered when it comes to finding a worthwhile motivation for reading in our classes of deaf children. National Book Week was a stroke of genius on the part of the founders, and three cheers for the persons responsible for placing its observance in the first quarter of the school calendar, thus providing the kick-off for our reading and literature program.

It is imperative that we instill a love for good literature in our deaf children. Yet all too often the literature program is delayed to allow more time for the teaching of reading skills, informative reading and remedial reading. The wholesomely developed deaf child has many facets, one of which should be a genuine desire for good reading. The greatest service we, as teachers of deaf children, can render is to help them acquire a vital interest in books. And one sure-fire way in which to accomplish this challenging feat is to saturate our girls and boys with an atmosphere of literature. Easy access to books is one of the most influential factors governing quantity and quality of children's reading.

Children are not aware of the pleasure and satisfaction to be found in books unless they are guided to the rich treasure in many ways. And here is where Book Week takes command. The idea of producing something himself from the realm of stories with which he is familiar, provides the student with the needed spark for reading interest. He is now ready for purposeful reading. There is a goal in sight, a challenge to be met. Book Week stimulates this meaningful reading and creative expression. The observance of Book Week may be carried out in any one of a number of worthwhile activities—plays, contests, book fairs and many other interesting projects. Following is a flashback on several enjoyable Book Weeks at Western Pennsylvania School for the Deaf.

Book Week—1954

A wealth of exciting material built around the current Book Week theme is always available from the Children's Book Council. In 1954 "Let's Read" was the slogan offered by the Council

Mrs. Edge is school librarian and reading teacher in the Advanced Department at the Western Pennsylvania School for the Deaf.

We obtained large posters from the Council on which the idea of reading for fun was cleverly depicted in eye-catching colors. The displays were made up in several different designs keyed to all age interests from the pigtail crowd through the bobby-soxers.

In a rather loosely constructed and necessarily flexible program, our initial step was to present the theme of Book Week. This was done in the library when each class reported for their scheduled library period. By this time the new Book Week posters which we had obtained from the Book Council were very much in evidence, having been placed in strategic positions—in the corridors, on the library doors, and in the library.

At our next class session we began probing for individual interests and ideas. Suggestions for the type of program to be carried out for Book Week were hopefully solicited. Several pupils suggested a poster contest, but expressed the desire to have the posters different from the run-of-the-mine variety. This led to a discussion of the different types of poster work done in the art class. Paper sculpture seemed to hold more appeal than straight poster work for most of the children. However, the term "paper sculpture" was not clear to all. At this point it seemed pertinent to extend an invitation to our art teacher to visit our reading class and bring us up to date on paper sculpture and three-dimension posters. The following day, our art teacher, fortified with an array of cleverly designed posters, visited us. She enthusiastically offered her full cooperation. From that point on, the art department and the reading department correlated their best efforts toward a successful Book Week contest.

The previous year we had made shoebox dioramas as a creative expression project following creative reading. This experience was recalled and dioramas were drafted for Book Week duty also.

Our next step was to decide on which stories to use. This called for much browsing among library shelves, finding old book friends, discovering newcomers. The children were given ample time and opportunity for this most important step.

Some pupils chose to review a previously read book to which they were particularly attached. Others wished to invade new fields of reading interest. This choice was strictly the pupil's own. It was emphasized by the teacher that a pupil was privileged to draw on any past reading experience for his Book Week contribution.

Following the selection of a story with which to work, came the decision of which medium to use. Paper sculpture? Diorama?

Making plans for their project—now out of the embryo stage—and gathering needed materials and props, occupied the majority of the students for the next few days. But, as always, there were a few reluctant children who were fearful of new ventures, certain that they would fail in the eyes of their classmates. These children needed encouragement and understanding. The teachers gave much thought to helping the timid and backward child gain confidence in himself. Once he realized that everyone must learn to do new things and that it is really fun to try, he was ready to make his contribution.

During this period of preparation, designing and execution of plans, the art department welcomed all comers—whether a regularly scheduled art student or not. The pupils received suggestions and instruction, obtained supplies and props from the art department, but were required to do the actual work on their project themselves.

As the period of preparation progressed toward Book Week, a veil of secrecy and mystery hung over the reading department. Many of the students really had their teeth in their project and were relishing every opportunity to be self-sufficient and independent. Never have the reference books been in such

demand! A number of the advanced students kept their projects a deep secret until the day when the display was set up and put on exhibition. They obtained all the necessary supplies and equipment for their projects themselves and did all of the work on their entries after school hours, in their dormitory rooms, on their own time. The satisfaction that these young people derived from seeing their book friends take form in dioramas and on posters cannot be measured. The reading experience gained from this type of optional reading and reference work is invaluable.

As the children completed their projects, they placed them in the Pupil's Library along with the book or books used as the source material. When all projects were turned in, the reading teachers, the art teacher, a committee of students and the librarian merged their ideas and efforts in arranging an attractive display that was easily accessible to all viewers. The paper sculptures and other posters were mounted on the doors of the book cases encircling the library. These posters were arranged according to the type of literature involved. Atop the bookcases went the larger posters, mounted on easels, which had been made by the boys in the wood shop. In conjunction with each display were the books that the children had used as the basis for their work. When feasible the book was opened to the place giving the incident depicted by the child. This made for a very colorful and meaningful display.

We used the library reading tables and additional folding tables secured from all parts of the school for displaying the dioramas. The dioramas had been made from cardboard cartons gathered from the kitchen through the cooperation of our housekeeper. By the time these cartons reached the library display tables, they had been transfigured into enchanting scenes that ran the gamut from King Arthur up through Hervey Allen's *Bedford Village*. We were careful about not crowding the diorama displays and about arranging them in subject groups. For example, we used a large table on which to display three scenes taken from the Bible Stories, allowing ample space for the religious stories and books to be placed near the displays. On another larger table were dioramas of Mother Goose favorites, accompanied by the beautiful Golden Book editions of Mother Goose and the delightfully illustrated Child Craftbooks. Using this same plan, we set up tables allocated to the different types of literature. In all we had more than one hundred entries on display. Aisles were left between all tables so that each display had equal accessibility for all sizes of children. This arrangement made it possible for each child to fully enjoy the displays and look through the books at his leisure. In this way, the fundamental purpose of Book Week was accomplished.

As a finale, all visitors were invited to cast a ballot for the popular vote. The displays were identified by code numbers in place of names. It was gratifying to see how a ribbon, in recognition of fine work, could make a child glow with the pride of accomplishment. In addition to the popular vote, grand prize winners were chosen by a jury of four people—two student representatives chosen by student vote and two adults.

Book Week—1955

"Let's Read about Pennsylvania" was our subject in our 1955 Book Week adventure. We began our reading for this the first week of school in the fall because a Book Week project involves much more time than its title implies. The most time-consuming parts of the enterprise are the preparatory steps—reading, reading, and more reading. Extensive browsing on the chosen Book Week subject is necessary in order to get ideas and information with which to work. For this reason, it is expedient to launch the program early in the Fall,

so that the preparatory reading will not be hurried or slighted.

With the students' help in the library, we grouped all of the books about Pennsylvania—fact or fiction. These were displayed along with pictures and posters telling of the coming Book Week. Interest among the pupils soon had our project rolling. They decided to work in groups and to make murals and models of the various aspects of Pennsylvania's history, industries, natural resources and its people. The displays were placed in the library and all departments of the school were invited to view the truly remarkable work that our young Pennsylvanians had produced. Many of the projects were so detailed and authentic that teachers used them for study in their various classes of history and geography.

As a grand finale we had a Pennsylvania costume party in our gymnasium. Our Book Week murals of Pennsylvania provided appropriate decorations. The costumes represented practically every phase of our history and included many delightful characters found in Pennsylvania literature. Charades, corn-husking, a spelling-bee and square dancing entertained our young people for the evening and brought our most informative and truly educational Book Week to a happy conclusion.

Book Week—1956

The theme of our Book Week program in 1956 was "Let's Read About Our Presidents and How They Were Elected." This particular subject was chosen for its immediate and widespread interest due to the 1956 Presidential campaigns.

The fact that many of our older students would be eligible to cast a vote in the 1960 presidential election alerted us to their need for instruction and experience in voting procedure.

In preparation for our reading program, we set aside all books about presidents, elections, and federal government that our library could provide. To supplement these and to bring our reading and sources of information up to date, new books on the subject were purchased. These books were in a comprehensive range from fourth grade reading through twelfth grade reading.

Since the crux of our project was to teach the students how to register and vote, much reading was done along these lines in preparation for further instruction which was to follow in the Civics and History classes in the Intermediate and Advanced Departments. The Civics and History teachers took charge of the mock election which was held in the Pupil's Library on Election Day.

Following the election, a contest was held. Ideas gained through extensive reading about presidents were expressed in dioramas and posters by the pupils. Dioramas were kept to cigar-box or shoe box size. Posters did not exceed 18″ x 24″. Many interesting exhibits were prepared by the pupils. These were on display in the Pupil's Library. Three teachers, not connected with the project, served as judges.

To conclude our Book Week activities, an assembly program was given at which prizes were awarded. A backdrop picturing the White House was used as the stage setting. Art students under the direction of the Art Department made the backdrop. The program "Favorite Songs of Some of our Presidents" featured our first president and wife, George Washington and Martha Washington. They were portrayed by Donald Stiffler and Carol Pisarek. Following them Allen Phillips and Nancy Stewart took the parts of President and Mrs. Lincoln. Franklin Roosevelt and his wife, Eleanor, were aptly characterized by Ralph Sipes and Mabel Stiles. Jerry Stewart and Sarah Adams were quite convincing as President Eisenhower and Mamie Eisenhower. The songs, "America," "Jimmy Crack Corn," "Home on the Range," and "All the World is Waiting for the Sunrise" were taught the pupils in their rhythm classes. As each song was

flashed on the screen, the representative president and his wife took their place on the platform in front of the White House. The student body then joined in the songs. The program was concluded by all singing the national anthem as our "presidential" couples stood together in front of the "White House."

Students were so engrossed in probing for information concerning our presidents—some little-known gem that perhaps their classmates had over looked —that they read with a real purpose. They became adept at finding facts in our reference books, locating desired books in the library "on their own" by following the Dewey Decimal System, which suddenly had become meaningful to them. And thus, another Book Week observance had proven invaluable as a means of inspired and motivated reading .

Book Week could well become a tradition at all schools: a time that is anticipated with excitement; rich with ideas. It should be a week of well developed plans and ultimately a program in which all children, and as many departments as possible, correlate their efforts toward a meaningful activity. A Book Week program not only entertains for a week—its association with books and reading lives on in the hearts and memories of the children, enriching their minds for a lifetime.

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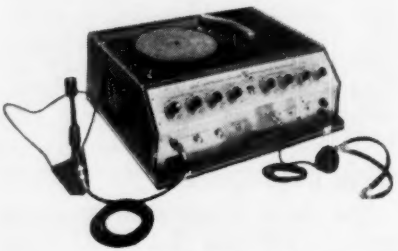

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MULTIPHASE EQUIPMENT

Letters TO HELEN

Helen is a teacher of the deaf—any teacher of the deaf. You are invited to write her at the *Volta Review* so that she and all our other teacher readers may learn from your experience.

Dear Helen:

Contrary to popular impression, a teachers' meeting on the opening day of school does not deal exclusively with who did what in July and August. This year we had a brief flurry of discussion on "busy work," and solutions for the problem have been running through my mind ever since.

Various kinds of flash cards are one answer to this problem. I've made up sets of cards covering several different subjects, but one set which I have used with classes of widely differing ages and abilities has been especially valuable. This group deals with all aspects of calendar work. I first collected calendars of assorted sizes, and from them I cut out the proper illustrations for a day, week, month, the seasons, and a year. The cut-out portions were then mounted on one side of 5″ x 7″ cards and on the other side the corresponding answer was written.

The written and printed forms of all the names of the days, months and seasons were also included as problems. I inserted several catch questions, too. Do you realize that most deaf children will correctly identify seven days running from Sunday through Saturday as a week, but if they are confronted with seven days, Wednesday through Tuesday, for example, they will not recognize it as such? I have met a good many deaf children who recognized the current year as "a year," but who were bewildered by the fact that a 1932 calendar also represented "a year," or that a year can run from July of one year through June of the next.

Two children work with the cards, one acting as teacher. Five or six sets of these cards will provide hours of constructive busy work. Some of the other sets I've made are focused around prepositions, arithmetic terms, occupations, names of school personnel, and local landmarks, using stick-drawings, magazine illustrations and snapshots.

One of the joys of these busy work flash-card sets is that once made, they go on being used seemingly forever.

M. H. Gruver
Rhode Island School for the Deaf

Dear Helen:

Because I realize that mothers and teachers of young deaf and hard of hearing children hunger for specific materials and lesson plans, I wish to share one of my most enjoyable experiences. This was a traffic unit that might be called Traffic Lessons for Tiny Tots.

I began with the book, *Red Light, Green Light* by Golden MacDonald and Leonard Weisgard. The first thing the child sees in this book is simply a sheet of red paper. The second page is a sheet of green paper. The next step is a picture of a traffic signal with the red light showing, then the green light.

In the class we had a long talk about traffic lights and what red and green lights mean. Then we returned to our book.

The story concerns the village waking up. The horse, the truck, the car, the cat, the dog, the mouse all wake up.

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Then the little boy wakes up and gets on his bicycle. Sooner or later they all wish to cross the street. Everything and everyone, even the field mouse, waits for the light to turn green before crossing the street.

About this time we went to a nearby corner and observed the traffic light. We did just like all the characters in the book—we waited for the green light.

When we got back to school we made a very simple traffic light out of black paper and put it in our scrap book. We pasted red and green and yellow "lights" on this background.

The next day we returned to *Red Light, Green Light* and watched all of the things wake up and go across the street again. Then we listened to a record called "Little Fat Policeman." Although some of the children in the group have profound hearing losses, they could all hear the policeman's whistle on the group aid.

A few days later we looked at our book again and continued the story. It was later in the day, and darkness was increasing. All of the animals and people wanted to go home and go to bed. Even though they were tired, they all stopped when the light was red and did not move until the light turned green. The book closes with everyone tucked into the place where they happened to sleep. The whole village has gone to bed. The traffic light does not go to bed. It goes on telling people when to stop and when to go.

The children never tired of this lesson, although we repeated it again and again. I was very pleased and surprised when I returned to my classroom one day and found the children playing with the book. One child would stand in the center of the room and flip the green page—the children would run. Then he would show the red page, and they would all stop.

Faith F. Ekstrom
Indianola Elementary Day School, Columbus, Ohio

Leisure Reading for Deaf Children

PATRICIA BLAIR CORY
LIBRARIAN, LEXINGTON SCHOOL FOR THE DEAF

Not a Little Monkey, by Charlotte Zolotow. Lothrop, Lee and Shepard, 1957. $2.50.

The author of *One Step Two* has given us another delightful story which can be used with the very young deaf child. I know a three-year-old hearing child who can tell the story of *Not a Little Monkey* by heart as she turns the pages. While the four or five-year-old deaf child is a long way from understanding the language of the text, he can readily understand the concepts and humor through the pictures and oral telling. The story will be as appealing to the young deaf child as it is to the hearing child.

According to the story, one day mother was so busy that she couldn't stop to play with her little girl. While mother was using the vacuum cleaner, the little girl lay down on the floor, but mother told her she wasn't a rug. The little girl climbed into the wastebasket, but mother said they didn't want to throw her away. Next, she tried to climb into the sink, but mother said she was not a dish, and so on. Finally, the child climbed into her bed and peered through the bars, but mother said she was not a monkey.

Like most successful children's stories, this is very simple, deceptively simple, in fact. The imaginative games that can be played with this book are great fun for the small child.

Growing and Changing, by Samuel Exler. Lothrop, Lee and Shepard. $2.50.

This book has a pleasing appearance, and our children are drawn to look at the illustrations by Mrs. Exler, to identify the simple objects pictured and to make their own interpretations of the illustrations. The book is intended for hearing children from 5 to 9 years old. It was written as the result of Mr. Exler's attempt to explain the change of seasons to his own daughter.

Apart from its casual use as a picture book, the serious use of *Growing and Changing* will be by the language teacher.

"To change" can mean many things. The concept of growing is complex. This book will give the teacher many examples of changes. Many of the examples are clearly illustrated by sketches.

A few examples of materials included are: day changes into night—morning comes, the sun rises and night has changed into day. People change from sleeping to waking. Mother cooks eggs for breakfast and a change takes place. At breakfast everyone is hungry, bu' as they finish they have changed; they are no longer hungry. The children go to school and many different kinds of changes take place. There are changes in time and in space. This is an excellent and useful book highly recommended for teacher use in the middle and upper schools.

The Useful Dragon of Sam Ling Toy, by Glen Dines. The Macmillan Co. 1956. $2.75.

This is a whimsical story, one might almost call it a modern fairy tale, of a dragon who lives in a laundry, high up on a hill in San Francisco's Chinatown. Sam Ling Toy, who loves pets and has many of them, takes a lizard home to join his menagerie. The lizard grows into a magnificent dragon having silver

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horns and a long wiggly tail. The dragon is playful, gentle with children and loves to chase cable cars. But most of all, he wants to be useful. This desire leads him into all kinds of trouble, until at last he retreats sadly into the shop weeping mint tears from his green eye and peppermint tears from his red eye.

Finally the dragon does find a useful role—he leads the New Year's Day parade through Chinatown, making everyone happy, for he was being most useful in "such a fine dragonish sort of way."

The illustrations by the author are in color, and are gay and amusing.

We will use this book with our oldest groups in middle school and the younger groups in upper school, covering ages 10 through 13.

On With the Chase, by Catherine Barr. Oxford University Press. $2.00.

This is an easy picture book with simple story line and plenty of action. A sleeping cat is awakened by a scratching mouse, and the chase begins. Although there are some close shaves, the cat never does catch the wily mouse, and they go on happily living together in the same house.

The black, white and blue sketches are full-page, simple and uncluttered. There is very little text—only one or two rhyming lines per page. This can be useful for oral telling at the preschool level.

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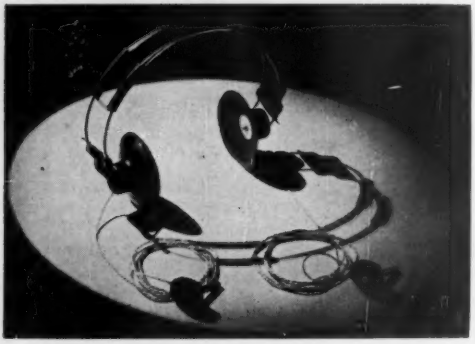

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NEWS

Problems of Geriatric Audiology

Dr. William G. Hardy, director of the Hearing and Speech Center, Johns Hopkins Hospital, and a director of the Alexander Graham Bell Association for the Deaf, will be chairman of the session on Problems of Geriatric Audiology at the Convention of the American Speech and Hearing Association in Cincinnati, November 20-22. Two other directors of the Association will also take part in the convention program. They are Dr. Helmer R. Myklebust, director of the Institute for Language Disorders in Children, Northwestern University, and Miss Alice A. Kent, supervisor of day classes for the deaf in East Cleveland, Ohio.

Two of the editorial consultants of the *Volta Review*, Dr. Miriam Pauls and Dr. Victor Goodhill, are also scheduled to take part in the program.

Dedicates New Building

Dr. Clarence D. O'Connor, past president of the Alexander Graham Bell Association for the Deaf, superintendent of Lexington School for the Deaf, spoke at the dedication ceremonies of two new buildings at the St. Joseph Institute for the Deaf, University City, Missouri on Sunday, October 13. The two new buildings are Celestine Hall and the Harry T. Bussmann, Jr. Gymnasium.

New Study Program

The Speech and Dramatic Art Department and the Speech and Hearing Center of Adelphi College, New York, have announced a program of study leading to a master's degree in speech and hearing rehabilitation.

NOTES

Colorado Training Program

A training program to prepare speech therapists for smaller Colorado communities will be launched by the Colorado Society for Crippled Children and Adults, and co-sponsored by the University of Denver. The courses will start in the summer quarter of 1958 and will be open to senior-year students in speech pathology or graduate students in education who wish to specialize in the field of speech. Candidates must live in the rural areas of Colorado and agree to practice speech therapy in their home areas at least one year following the completion of their training.

Training Course In Mexico

The Mexican Institute of Hearing and Speech will offer an inter-American training course, to be given in Spanish, for teachers of the deaf. The course will begin on February 1 and will continue throughout the year. It will be under the auspices of Dr. S. Richard Silverman, president of the Alexander Graham Bell Association for the Deaf.

TV Program on Aphasics

The Houston, Texas, Council for Aphasic Children is sponsoring a series of television programs entitled "Hope for Aphasic Children" over station KUHT which is located on the campus of the University of Houston.

Wisconsin School

Mr. Kenneth F. Huff, formerly assistant superintendent of the Nebraska School for the Deaf, is now superintendent of the Wisconsin School for the Deaf at Delavan.

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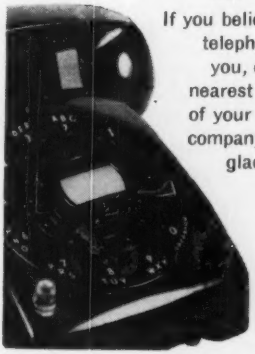

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(*Continued from page* 401)

In another group are those children who cannot remember whole words taught by techniques of simple repetition. These children require special speech memory building techniques which build upon speech sounds, not words, and use a multi-sensory approach of kinesthetic, tactile, visual and auditory stimuli to bolster the weak auditory sensory channel and weak memory. It is for this latter group that we would reserve the use of the diagnosis of aphasia.

Between these two extremes are to be found many gradations of ability and disability in speech and language learning. An adequate educational program would provide groupings of children—normal, hearing handicapped, and aphasic, according to their educational needs and abilities, and would provide the tvpe of training suitable for the group. Such a program would also provide for transfer from one group to another as the needs of the individual child change.

1. Berry, Mildred F.; Eisenson, Jon. *Speech Disorders*. N.Y. Appleton-Century-Crofts, Inc. "Congenital Aphasia," Chap. 17, pp. 420-439.

2. Hardy, William G. "Problems of Audition, Perception and Understanding." *The Volta Review*. Vol. 58, Sept. 1956, pp. 289-300.

3. Karlin, Isaach W. "Aphasias in Children." *A.M.A. Journal of Diseases of Children*. Vol. 87, 1954, pp. 752-767.

4. McGinnis, M. A.; Kleffner, F. R.; Goldstein, R. "Teaching Aphasic Children." *The Volta Review*, Vol. 58. June, 1956, pp. 239-244.

5. McGinnis, Mildred A., "The Association Method for Diagnosis and Treatment of Congenital Aphasia." Unpublished master's dissertation, Washington University, St. Louis, 1939.

6. Myklebust, Helmer. "Training Aphasic Children." *The Volta Review*, Vol. 57, April, 1955, pp. 149-157.

7. Myklebust, Helmer. *Auditory Disorders in Children*, N.Y. Grune & Stratton. 1954.

8. Myklebust, Helmer. "Aphasia in Children—Language Development and Language Pathology" and "Aphasia in Children—Diagnosis and Training," in Travis, Lee. *Handbook of Speech Pathology*. N.Y. Appleton-Century-Crofts, 1957, pp. 503-530.

9. Myklebust, Helmer R. "Language Training and a Comparison Between Children with Aphasia and Those with Deafness," *American Annals of the Deaf*, Vol. 101, No. 2, March 1956.

10. Orton, Samuel R. *Reading, Writing and Speech Problems in Children*. N.Y., W. W. Norton Co. 1937.

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